Abstracts

Spatial and Temporal Coherence of a 35-GHz Gyromonotron Using the TE/sub 01/ Circular Mode

M.E. Read, R.M. Gilgenbach, R.F. Lucey, Jr., K.R. Chu, A.T. Drobot and V.L. Granatstein. "Spatial and Temporal Coherence of a 35-GHz Gyromonotron Using the TE/sub 01/ Circular Mode." 1980 Transactions on Microwave Theory and Techniques 28.8 (Aug. 1980 [T-MTT]): 875-878.

The characteristics of a 35-GHz oscillator operating with the TE/sub 01/ circular waveguide mode are described. The device produced 147 kW, with an efficiency of 31 percent at 100 kW. The total radiated energy was 2 kJ/pulse. The spectral coherence appears to be equal to those of other high-quality microwave tubes. The mode purity is greater than 95 percent.

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